

REMARKS

This is intended as a full and complete response to the Office Action dated March 29, 2004, having a shortened statutory period for response set to expire on June 28, 2004.

Claims 1 and 4-7 are pending in the Application.

Claim 1 is currently amended in the Application.

Applicant thanks the Examiner for withdrawing the rejection of Claims 1 and 4-7 under 35 U.S.C. 112 as set forth in the previous Office Action in light of the amendments submitted with the previous Response. Applicant thanks the Examiner for accepting the corrected drawings submitted on February 5, 2004.

Applicant thanks the Examiner for the telephonic interview on May 24, 2004.

Claim Rejections - 35 U.S.C. 112

The Office Action rejected Claims 1 and 4-7 under 35 U.S.C. 112, second paragraph as allegedly failing to comply with the written description requirement and for failing to point out particularly and claim distinctly the claimed subject matter.

Applicant has amended Claim 1 to remove the term "rapidly" as suggested by the Examiner.

Applicant believes no new matter has been added with these amendments. Reconsideration of this rejection is respectfully requested.

Claim Rejections - 35 U.S.C. 103

The Office Action rejected Claim 1 under 35 U.S.C. 103(a) as being unpatentable over DeCook US Patent Number 5,203,942, in view of the collective teachings of Hicks US Patent Number 5,359,387; Lopez US Publication Number 2003/0020945; Akada US Patent Number 5,451,560; and Rohleder US Patent Number 5,429,696.

Applicant's embossed prepress proof is formed with fewer steps than conventional processes. This method eliminates the lamination step as a separate step from the embossing step. In this application, the embossing occurs at the same time as lamination.

Applicant teaches on page 3 of the application as filed that:

- (a) a representative image ...[is] formed on the print media and then is transferred to receiver stock (forming an imaged receiver sheet). Lines 7-9, and
- (b) a laminator is used to bond or laminate the image (lines 9-11)
- (c) the laminator is used with endless belts in the lamination apparatus to laminate the imaged receiver sheet (line 15 same page)
- (d) embossed belts are used to create a thermal mark.

Traditionally, prepress proofs are given a thermal mark only after the entire image has been laminated. This has caused the image to be less clear with a lower resolution than the present method. Applicants improved method with fewer steps in the formation of the prepress proof yields a higher quality image than in previously described images.

More specifically, Applicant now claims:

A method of making a pre-press proof having an image formed thereon; by embossing the surface of the pre-press proof by laminating the pre-press proof with an endless embossing belt having an embossing mark to form a thermal mark wherein the image has a resolution of between 1000 dpi and 4000 dpi.

Applicant has amended Claim 1 to recite that the method produces a thermal mark with a resolution between 100 dpi and 4000 dpi. This amendment clearly indicates that this method is for high resolution images, which prior two step embossing techniques have not been able to achieve.

Applicant has amended Claim 1 to recite that the method is “consisting of” the method steps. With the consisting of language, the one step is even more clear.

Applicant believes that no new matter has been added by the amendment to the claims.

The DeCook reference does not teach the use of thermal marks on pre-press proofs that already contain a high resolution image using endless belts for embossing.

The DeCook reference teaches specifically delaminating composite stock using a prelamine, lamination equipment and a specific series of heat rollers, drums, and related laminating equipment to finally rip the substrate layer of the prelamine as the substrate layer passes through nips in the equipment. The DeCook reference does not mention the use of embossing belts in this process for the formation of thermal marks on the imaged receiver sheet.

Additionally, the DeCook reference does not suggest the use of thermal marks on pre-press proofs that already contain a very high resolution image. Thus, the DeCook reference does not make the thermal marks of the Applicant's method obvious as he does not teach the use of endless belts.

Applicant believes that one of ordinary skill in the art would know that markings can be added to images in the printing process, like those in the Hicks and Lopez references; however, adding the markings to an already existing image in the lamination process is novel and non-obvious.

The Hicks reference teaches a photographic process wherein negatives are printed in proof form on a single sheet of paper, forming a photographic proof. This photographic proof is not embossed using an endless belt laminator. Hicks does not suggest using an endless belt laminator to do the embossing of the thermal mark.

Reconsideration of the Hicks reference is requested.

The Lopez reference 2003/0020945 A1 teaches a proof sheet containing markings to facilitate printing of a web page. The Hicks and Lopez references only show that that forming markings, such as number, symbols, and letters on a surface proof is known in the proof art. Neither teaches using endless belts to emboss or to use a one step process. Neither the Hicks nor Lopez references teach the application of thermal marking using one step laminating to achieve the attachment of the desired thermal mark to the image.

Additionally, neither the Hicks and Lopez references nor any other of the cited references teach thermal embossing process for images with a resolution between 1000 dpi and 4000 dpi, as taught in the Applicant's method. Applicant believes that the Hicks and Lopez references do not add the missing elements from the DeCook reference.

The Akada reference does discuss laminating and embossing step of images. The Akada reference in FIG. 32 shows an embossing element which is

a die cut. In column 33, the Akada reference teaches that a “diecut” process forms a shape on the image, see lines 6-19. The Akada reference does not suggest that laminating step and embossing can be by an endless belt process to add a thermal mark to an image with a resolution between 1000 dpi and 4000 dpi. Reconsideration of this rejection and the Akada reference is respectfully requested.

The Office Action rejected Claims 4-5 and 7 under 35 U.S.C. 103(a) as being unpatentable over DeCook US Patent Number 5,203,942, in view of the collective teachings of Hicks US Patent Number 5,359,387; Lopez US Publication Number 2003/0020945; Akada US Patent Number 5,451,560; and Rohleder US Patent Number 5,429,696; and in further view of Metzger US Patent Number 6,177,234.

The Rohler reference teaches a process for producing a multilayered film. It is not specifically a lamination process using endless belts, as in the case of Applicant’s method. In addition, this process simply builds up the film composite by continuously adding sealant over the substrate. The Rohler reference does not deal with high resolution images, or a simple one pass process that includes embossing as taught by applicant. Reconsideration of this reference is requested.

The Metzger reference shows forming a dual sided pre-press proof. The Metzger reference teaches using a high resolution master to make proofs.

The Metzger reference does teach that the proofs can be laminated onto an image carrier (See Column 9, lines 3-5). The Metzger reference does not teach creating a thermal image on the laminated high resolution image. The Metzger reference does not teach embossing using endless belts in essentially a single step process which is cheaper than multistep processes. Accordingly, neither Rohleder nor Metzger references fill the gap to create high quality prepress proofs using a lamination process with a thermal mark where the resulting proof has a very high resolution.

The Metzger reference does not suggest that combination of the laminating step and an embossing step can add a thermal mark or markings to an already created image or can create images with a resolution between 1000 dpi and 4000 dpi, as taught in the Applicant’s method. Applicant believes that the Metzger reference does not add the missing elements from the DeCook reference.

Reconsideration of this rejection is respectfully requested.

The Office Action rejected Claim 6 under 35 U.S.C. 103(a) as being unpatentable over DeCook US Patent Number 5,203,942, in view of the collective teachings of Hicks US Patent Number 5,359,387; Lopez US Publication Number 2003/0020945; Akada US Patent Number 5,451,560; and Rohleder US Patent Number 5,429,696; and in further view of Hoisington - EP Patent Number 0 949 081.

The Hoisington reference shows the ink jet generated images are known in the art. The Hoisington reference does not suggest that combination of the laminating step and an embossing step can add a thermal mark or markings to an already created image or can create images with a resolution between 1000 dpi and 4000 dpi, as taught in the Applicant's method. Applicant believes that the Hoisington reference does not add the missing elements from the DeCook reference.

Reconsideration of this Application in view of the amended claims and the associated remarks expressed throughout this Response is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'N. A. Blish', written over a horizontal line.

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